



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/547,688	02/23/2006	Kenny Chang	012350-0383686	7107

909 7590 12/30/2010
PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
----------	--------------

1798

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/30/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket_ip@pillsburylaw.com
margaret.drosos@pillsburylaw.com

Office Action Summary	Application No. 10/547,688	Applicant(s) CHANG, KENNY	
	Examiner Andrew T. Piziali	Art Unit 1798	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 23-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 12/17/2010 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8-10, 23-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 2,900,182 to Hinks in view of USPN 3,958,840 to Hickox.

Hinks discloses thrust bearings comprising layers of elastomeric material and layers of metal (see entire document including column 2, lines 9-24). A metal layer corresponds to the claimed shim member. Hinks discloses that the shim member may be annular and planar (see Figure 7 and column 9, lines 31-42).

Hinks does not mention the metallic members having a plurality of openings, but Hickox discloses that it is known in the thrust bearing art to construct metallic members with a welded wire screen construction to improve production and lower costs (see entire document including Figure 3 and column 1, lines 47-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member with the welded wire screen disclosed by Hickox, motivated by a desire to improve production and lower costs.

Art Unit: 1798

Regarding claims 2, 10, 24, 27 and 32, Hickox discloses that the wire screen metallic material may be bare steel (column 2, lines 38-49).

Regarding claims 3 and 25, Hickox discloses that the wire screen is a wire mesh (column 1, lines 52-68).

Regarding claims 4, 5, 26 and 27, Hickox discloses that the wire screen metallic material may be a refractory metal (column 1, lines 52-68).

Regarding claims 6 and 28, the wire mesh has an open area of between 20 and 80% because it is constructed with a mesh size of about 10 (Figure 3 and column 2, lines 38-49).

Regarding claims 8 and 30, Hickox discloses that the wire mesh screen is an open-weave structure (column 1, lines 52-56). Hickox does not appear to mention preshaping (crimping) the wires, but absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are

Art Unit: 1798

commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 9 and 31, considering that wires are welded at their intersections (column 2, lines 38-49), the member would inherently have an effective thickness of about twice the diameter of the wire constituting the wire mesh.

4. Claims 4, 5, 7, 26, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 2,900,182 to Hinks in view of USPN 3,958,840 to Hickox as applied to claims 1-6, 8-10, 23-28 and 30-32 above, and further in view of USPN 4,227,858 to Donguy.

Regarding claims 4, 5, 26 and 27, Hinks does not mention the use of stainless steel, but Donguy discloses that it is known in the art to use stainless steel (see entire document including column 2, lines 12-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the metallic member from any suitable metallic material, such as stainless steel, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 7 and 29, Hinks does not mention the claimed member thickness, but Donguy discloses that it is known in the art to use metallic layers with a thickness of about 0.8 mm (column 2, lines 56-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member with a thickness of about 1 mm, because it is within the general skill of a worker in the art to select a member thickness on the basis of its suitability and desired characteristics.

Art Unit: 1798

5. Claims 1-6, 8-10, 23-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,958,840 to Hickox in view of USPN 2,900,182 to Hinks.

Hickox discloses thrust bearings comprising layers of elastomeric material and layers of metal (see entire document including column 2, lines 21-37). A metal layer corresponds to the claimed shim member. Hickox discloses that the shim member is a metallic welded wire screen comprising openings (see entire document including column 1, lines 52-68 and Figure 3).

Hickox illustrates a frusto-conical shape and does not appear to specifically mention the claimed substantially planar shape. Hinks discloses that it is known in the thrust bearing art to construct a thrust bearing in any desired shape such as frusto-conical or planar (see entire document including Figures, column 1, lines 18-25, column 7, lines 19-26, and column 9, lines 31-42). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the shim member in any known thrust bearing shape, such as planar, because some thrust bearing applications require a planar shape.

Regarding claims 2, 10, 24, 27 and 32, Hickox discloses that the wire screen metallic material may be bare steel (column 2, lines 38-49).

Regarding claims 3 and 25, Hickox discloses that the wire screen is a wire mesh (column 1, lines 52-68).

Regarding claims 4, 5, 26 and 27, Hickox discloses that the wire screen metallic material may be a refractory metal (column 1, lines 52-68).

Regarding claims 6 and 28, the wire mesh has an open area of between 20 and 80% because it is constructed with a mesh size of about 10 (Figure 3 and column 2, lines 38-49).

Art Unit: 1798

Regarding claims 8 and 30, Hickox discloses that the wire mesh screen is an open-weave structure (column 1, lines 52-56). Hickox does not appear to mention preshaping (crimping) the wires, but absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 9 and 31, considering that wires are welded at their intersections (column 2, lines 38-49), the member would inherently have an effective thickness of about twice the diameter of the wire constituting the wire mesh.

Art Unit: 1798

6. Claims 4, 5, 7, 26, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,958,840 to Hickox in view of USPN 2,900,182 to Hinks as applied to claims 1-6, 8-10, 23-28 and 30-32 above, and further in view of USPN 4,227,858 to Donguy.

Regarding claims 4, 5, 26 and 27, Hickox does not mention the use of stainless steel, but Donguy discloses that it is known in the art to use stainless steel (see entire document including column 2, lines 12-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the steel member from any suitable metallic material, such as stainless steel, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

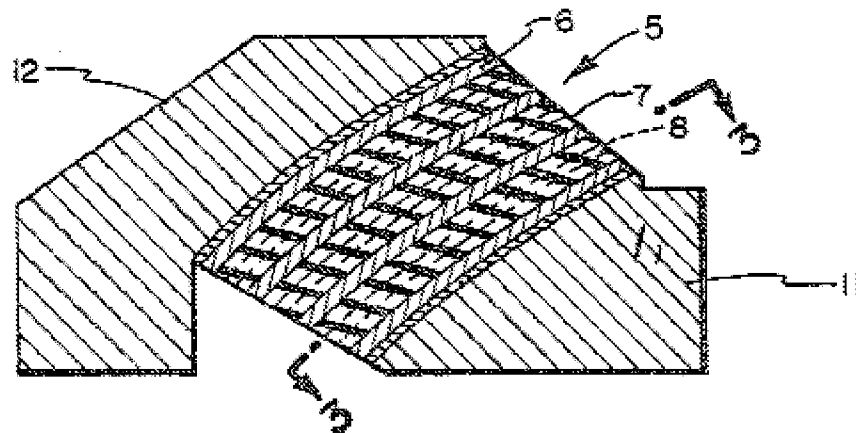
Regarding claims 7 and 29, Hickox does not mention a member thickness, therefore, it would have been obvious to look to the prior art for conventional thicknesses. Donguy provides this conventional teaching showing that it is known in the art to use metallic layers with a thickness of about 0.8 mm (column 2, lines 56-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member with a thickness of about 1 mm, motivated by the expectation of successfully practicing the invention of Hickox and because it is within the general skill of a worker in the art to select a thickness on the basis of its suitability and desired characteristics.

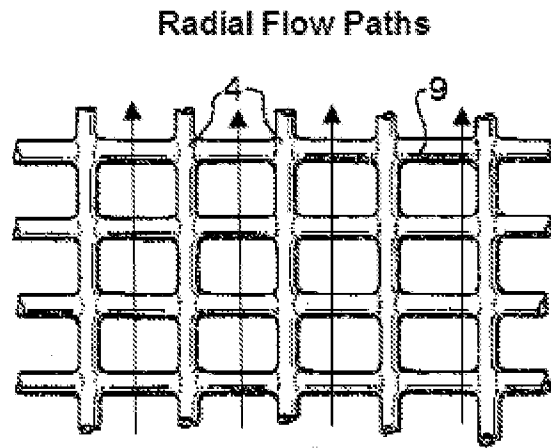
Art Unit: 1798

Response to Arguments

7. Applicant's arguments filed 12/17/2010 have been fully considered but they are not persuasive.

The applicant asserts that at the welded wire intersections there is no pathway for gas flow above or below the wires. Applicant's argument is not persuasive because that the feature upon which applicant relies is not recited in the rejected claims. The current claims simply require that the member at least partly defines a plurality of radially extending gas flow paths. Illustrated below is Figure 3 of Hickox which is a fragmentary section taken on line 3-3 of Figure 2 (column 2, lines 9-17). Arrows have been drawn to illustrate at least partly defined radially extending gas flow paths:

**FIG. 2**



The woven knuckle intersections (4) protrude to provide channels that at least partly define radially extending flow paths (see arrows). It is noted that perpendicular flow paths (channels) also exist due to the woven knuckle intersections (4). The applicant is directed to page 7, lines 5-15 of the current specification wherein the claimed partly defined flow paths (channels) are discussed.

The applicant asserts that when the woven wire mesh is located between rubber layers the rubber layers eliminate the claimed gas flow paths. Applicant's argument is not persuasive because the current specification discloses that "partly" defined gas flow paths are paths partly defined by an opposing surface in cooperation with the structure of the member (page 7, lines 5-15).

The applicant asserts that there is no motivation to combine the references. The examiner respectfully disagrees.

Art Unit: 1798

Regarding the rejection of Hinks in view of Hickox, Hinks does not mention the metallic members having a plurality of openings, but Hickox discloses that it is known in the thrust bearing art to construct metallic members with a welded wire screen construction to improve production and lower costs (see entire document including Figure 3 and column 1, lines 47-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member with the welded wire screen disclosed by Hickox, motivated by a desire to improve production and lower costs.

Regarding Hickox in view of Hinks, Hickox illustrates a frusto-conical shape and does not appear to specifically mention the claimed substantially planar shape. Hinks discloses that it is known in the thrust bearing art to construct a thrust bearing in any desired shape such as frusto-conical or planar (see entire document including Figures, column 1, lines 18-25, column 7, lines 19-26, and column 9, lines 31-42). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the shim member in any known thrust bearing shape, such as planar, because some thrust bearing applications require a planar shape.

The applicant asserts that Hinks teaches away from using metallic plates having openings because Hinks wants to prevent the extrusion of elastomeric material. Applicant's argument is not persuasive because Hinks refers to the prevention of rubber material extruding "from between the plates" due to compressive force (column 2, lines 9-24). There is no teaching or suggestion that the use of metallic plates with openings would result in the elastomeric material extruding from between the plates.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571) 272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1798

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/

Primary Examiner, Art Unit 1798